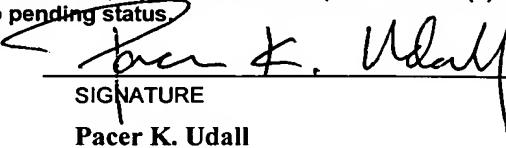


FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE (REV. 12-2004)		ATTORNEY'S DOCKET NUMBER ARIZ-10665
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>107521374</b>
INTERNATIONAL APPLICATION NO. PCT/US2003/028432	INTERNATIONAL FILING DATE 10 September 2003	PRIORITY DATE CLAIMED 10 September 2002
TITLE OF INVENTION <b>METHOD AND APPARATUS FOR SIMULTANEOUS HEAT AND MASS TRANSFER UTILIZING A CARRIER-GAS</b>		
APPLICANT(S) FOR DO/EO/US Beckman, James R.		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.</p> <p>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2))           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul> </p> <p>6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input checked="" type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ul> </p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ul> </p> <p>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).</p> <p>10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).</p> <p>11. <input type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409).</p> <p>12. <input type="checkbox"/> A copy of the International Search Report (PCT/ISA/210).</p>		
Items 13 to 23 below concern document(s) or information included:		
<p>13. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>14. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>15. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment.</p> <p>16. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</p> <p>17. <input type="checkbox"/> A substitute specification.</p> <p>18. <input checked="" type="checkbox"/> A power of attorney and/or change of address letter.</p> <p>19. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.</p> <p>20. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</p> <p>21. <input type="checkbox"/> A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).</p> <p>22. <input checked="" type="checkbox"/> Express Mail Label No. EV 614493973US</p> <p>23. <input checked="" type="checkbox"/> Other items or information:           <ul style="list-style-type: none"> <li>1. Prescribed fee of \$500;</li> <li>2. Return postcard.</li> </ul> </p>		

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO (if known, see 37 CFR 1.5) <b>10/527374</b>		INTERNATIONAL APPLICATION NO. PCT/US2003/028432		ATTORNEY'S DOCKET NUMBER <b>ARIZ-10665</b>																			
<p>24. The following fees are submitted:</p> <table> <tr> <td><input checked="" type="checkbox"/> a) Basic national fee .....</td> <td>\$300.00</td> <td>Applicant use</td> <td>Office use</td> </tr> <tr> <td><input checked="" type="checkbox"/> b) Examination fee .....</td> <td>\$200.00</td> <td>\$</td> <td>\$200.00</td> </tr> <tr> <td><input checked="" type="checkbox"/> c) Search fee .....</td> <td>\$500.00</td> <td>\$</td> <td>\$500.00</td> </tr> <tr> <td colspan="2"><b>TOTAL OF ABOVE CALCULATIONS =</b></td> <td colspan="2"><b>\$1000.00</b></td> <td>\$</td> <td><b>\$1,000.00</b></td> </tr> </table> <p><input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.</p>						<input checked="" type="checkbox"/> a) Basic national fee .....	\$300.00	Applicant use	Office use	<input checked="" type="checkbox"/> b) Examination fee .....	\$200.00	\$	\$200.00	<input checked="" type="checkbox"/> c) Search fee .....	\$500.00	\$	\$500.00	<b>TOTAL OF ABOVE CALCULATIONS =</b>		<b>\$1000.00</b>		\$	<b>\$1,000.00</b>
<input checked="" type="checkbox"/> a) Basic national fee .....	\$300.00	Applicant use	Office use																				
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<input checked="" type="checkbox"/> c) Search fee .....	\$500.00	\$	\$500.00																				
<b>TOTAL OF ABOVE CALCULATIONS =</b>		<b>\$1000.00</b>		\$	<b>\$1,000.00</b>																		
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole)	RATE																				
- 100 =	/50 =		x \$250.00	\$	\$0.00																		
Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492(e)).																							
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE																				
Total claims	20	- 20 = 0	x \$50.00	\$	\$0.00																		
Independent claims	2	- 3 = 0	x \$200.00	\$	\$0.00																		
MULTIPLE DEPENDENT CLAIMS (if applicable) <input type="checkbox"/>				+ \$360.00																			
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$1,000.00</b>																			
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.																							
<b>SUBTOTAL = \$500.00</b>																							
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).																							
<b>TOTAL NATIONAL FEE = \$500.00</b>																							
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property + \$0.00																							
<b>TOTAL FEES ENCLOSED = \$500.00</b>																							
Amount to be refunded:																							
Amount to be charged:																							
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>\$500.00</u> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees. A duplicate copy of this sheet is _____.</p> <p>c. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>19-0513</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>																							
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.																							
SEND ALL CORRESPONDENCE TO:  Pacer K. Udall SCHMEISER, OLSEN & WATTS LLP 18 E. University Dr., #101 Mesa, Arizona 85201 (480) 655-0073																							
 SIGNATURE <b>Pacer K. Udall</b> NAME <b>50,976</b> REGISTRATION NUMBER																							